

50. (Amended) A method of enhancing permeation of active substances through mucosa in an individual, said method comprising administering to said individual a pharmaceutical composition comprising

B₂ a mucoadhesive polymer having not more than 10 different monomers and at least one non-terminal thiol group in an amount effective for enhancing permeation of active substances, wherein said mucoadhesive polymer is selected from the group consisting of a thiolated copolymer of acrylic acid and divinyl glycol, thiolated chitosan, thiolated sodium carboxymethylcellulose, thiolated sodium alginate, thiolated sodium hydroxypropylcellulose, thiolated hyaluronic acid, thiolated pectin and derivatives of these thiolated polymers, and at least one active substance capable of being taken up via a mucosa in a therapeutically effective amount.

B₃ 53. (Amended) A method of administering an active ingredient to an individual in need thereof wherein the active ingredient is taken up via mucosae, said method comprising administering to said individual a pharmaceutical composition comprising a mucoadhesive polymer having not more than 10 different monomers and at least one non-terminal thiol group in an amount effective to introduce an active substance to said mucosae and at least one active substance to be taken up via mucosae in a therapeutically effective amount, wherein said active ingredient is capable of adhering to a mucosa selected from the group consisting of intradermal, intraocular and intraarticular mucosa.

54. (Amended) A method of inhibiting enzymes in an individual, said method comprising administering to said individual a pharmaceutical composition which comprises a mucoadhesive polymer having not more than 10 different monomers and at least one non-terminal thiol group, and at least one active substance capable of inhibiting enzymes in an amount effective for inhibiting said enzymes.

55. (Amended) A method of inhibiting zinc ion-dependent enzymes in an individual, said method comprising administering to said individual a pharmaceutical composition which comprises a mucoadhesive polymer having not more than 10 different monomers and at least one non-terminal thiol group, and at least one active substance capable of inhibiting zinc ion-dependent enzymes in an amount effective for inhibiting said enzymes.

71. (Amended) A method as set forth in claim 53, wherein said pharmaceutical composition further comprises at least one active substance to be taken up via said mucosa.

B₄
72. (Amended) A polymer as set forth in claim 30, wherein said derivatives are selected from the group consisting of derivatives obtained by auto-cross-linking, introduction of functional groups, attachment of complexing agents and coupling of enzyme inhibitors.

B₃
87. (Amended) A method of enhancing permeation of active substances through mucosa in an individual, said method comprising administering to said individual a pharmaceutical composition according to claim 82.

89. (Amended) A method of administering an active ingredient to an individual in need of an active ingredient which will adhere to a mucosa layer, said method comprising administering to said individual a pharmaceutical composition according to claim 82, wherein said pharmaceutical composition adheres to a mucosa layer selected from the group consisting of intradermal, intraocular and intraarticular mucosa.

B₆
90. (Amended) A method of inhibiting enzymes in an individual, said method comprising administering to said individual a pharmaceutical composition according to claim 82, wherein said active substance is capable of inhibiting enzymes, in an amount effective to inhibit said enzymes.

91. (Amended) A method of inhibiting zinc ion-dependent enzymes in an individual, said method comprising administering to said individual a pharmaceutical composition according to claim 82, wherein said active substance is capable of inhibiting zinc ion-dependent enzymes, in an amount effective to inhibit said enzymes
